

NEW SUBSPECIES OF *JAMIDES* AND *UDARA* FROM PALAWAN (LEPIDOPTERA : LYCAENIDAE)

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The present paper deals with five new subspecies of *Jamides* and a new subspecies of *Udara*. All the specimens were captured by Mr. Yasuzô Honda. The holotypes are to be preserved in the Osaka Museum of Natural History.

Before going further, I wish to express my sincere gratitude to Mr. Isamu Hiura in the museum who gave me the facilities for examining the specimens. My hearty thanks are also due to Lt. Col. J. N. Eliot, Messrs. T. G. Howarth and Akito Kawazoe who always give me valuable advices and kind assistances. I should be very grateful to Mr. Y. Honda for his great efforts at collecting butterflies.

Jamides pura howarthi H. Hayashi, ssp. nov. (Figs. 1-4)

♂. Upperside unicolourous whitish blue. Forewing black border not thread-like. Underside pale brown with white striae. Hindwing tornal orange area extremely large and prominent.

Forewing length 17mm

♀. Upperside greyish white with a slightly blue tinge, somewhat darker at basal area. Forewing black border broad. Hindwing costal and apical area dark. Hindwing markings conspicuous. Pale orange lunules above tornal spots. Underside ground colour and markings as in male.

Forewing length 8-16mm

Distribution: Palawan, Balabac I. and Pandanan I.

Holotype ♂, P.Q.S. Mine, Palawan, 7 April 1967. Paratypes 1♂, 2♀♀, San-Rafael, Palawan, 14 November 1969. 1♂, Melville, Balabac I., 20 July 1971. 1♀, Pasig, Balabac I., 23 July 1971. 1♀, Pandanan I., 5 August 1971.

The species ranges from Indochina to Malaysia and Palawan. The present new subspecies can be easily separated from ssp. *pura* Moore (Malaya) and ssp. *tenuis* Fruhstorfer (Borneo) by the well-developed tornal orange area on the underside hindwing.

The subspecific name is dedicated to Mr. T.G. Howarth for his continuous kindness and valuable advices.

Jamides rothschildi aritai H. Hayashi, ssp. nov. (Figs. 5-6)

♂. Upperside bright deep blue, with a comparatively broad black forewing border. Marginal white lunules on hindwing. Underside brown with rather broad white striae. Orange area above tornal black spot.

Forewing length 15mm

Distribution: Palawan

Holotype ♂, Alibobogan, Palawan, 8 December 1969.

The species has been known only from Serang (Ceram) and is new to Palawan. The present new subspecies is different from ssp. *rothschildi* D'Abrera as follows: 1) Upperside black border narrower, especially hindwing submarginal white lunules appear more clearly. 2) Underside ground colour darker. 3) The contrast of the tinge in submarginal area and the rest of both wings is not so conspicuous as *rothschildi*.

In addition, according to Mr. T.G. Howarth, underside forewing postdiscal bar in space 3 of the specimens from Ceram disjunct or mid-way between those in space 4, but this new subspecies has it joined to inner bar.

I name this new subspecies after Associate Prof. Yutaka Arita of Meijo University for his kindness in giving me the chance to study butterflies preserved there.

Jamides alecto kawazoei H. Hayashi, ssp. nov. (Figs. 7-10)

♂. Upperside pale blue with a purple tinge. Forewing black border expanding to apex. Hindwing

markings rather conspicuous. Underside pale brown with rather broad white markings. Hindwing orange crown above tornal spot prominent.

Forewing length 20mm

♀. Upperside much paler than male. Forewing black border broader, expanding extremely at apex. Hindwing markings well defined. Underside ground colour paler than male. Markings as in male but broader than male.

Forewing length 21mm

Distribution: Palawan

Holotype ♂, Taot-Daram, Palawan, 27 April 1967. Paratype ♀, Alibobogan, Palawan, 10 December 1969.

The species is known from India to Sundaland, the Philippines and Sulawesi. The present new subspecies is different from ssp. *agelades* Fruhstorfer (Malaya and Borneo) as follows: 1) Female upperside ground colour paler. 2) Upperside hindwing submarginal markings in the male more prominent. 3) Underside hindwing tornal orange crown much more conspicuous and elongated.

I name this new subspecies after Mr. Akito Kawazoe for his continuous kindness and valuable guidances.

Jamides schatzi jumaloni H. Hayashi, ssp. nov. (Figs. 11–12)

♂. Upperside white with a slightly greenish tinge. Black border thread-like. Hindwing marginal black spots appear indistinctly. Underside pale brown with whitish striae. Orange markings at tornal area comparatively prominent.

Forewing length 16mm

Holotype ♂, Panalingan, Palawan, 9 December 1969. Paratype ♂, Taot-Daram, Palawan, 5 August 1968.

The species has been known only from Moluccas and found in Palawan for the first time. The present new subspecies differs from ssp. *schatzi* Röber as follows: 1) Upperside ground colour white with slightly greenish tinge, however whitish in *schatzi*. 2) The black border more thread-like. 3) Underside ground colour much paler. 4) Hindwing with more orange in tornal area.

The subspecific name is dedicated to Prof. J.N. Jumalon of University of San Carlos for his contribution to Philippines lepidopterology.

Jamides cyta natsumiae H. Hayashi, ssp. nov. (Figs. 13–16)

♂. Upperside whitish blue with a slightly greenish tinge. Black border thread-like. Underside pale brown with white striae. Forewing with the cell-end stripes meeting the postdiscal band to form a prominent Y. Hindwing submarginal black spots conspicuous. Orange area at the tornal area rather prominent.

Forewing length 17mm

♀. Upperside whitish, with a slightly greenish blue tinge at costal and basal area. Forewing black border broad. Hindwing marginal dots rather conspicuous. Underside paler than male. White striae as in male, but a little wider. Hindwing submarginal black spots and tornal orange area much more prominent than male.

Forewing length 17–20mm

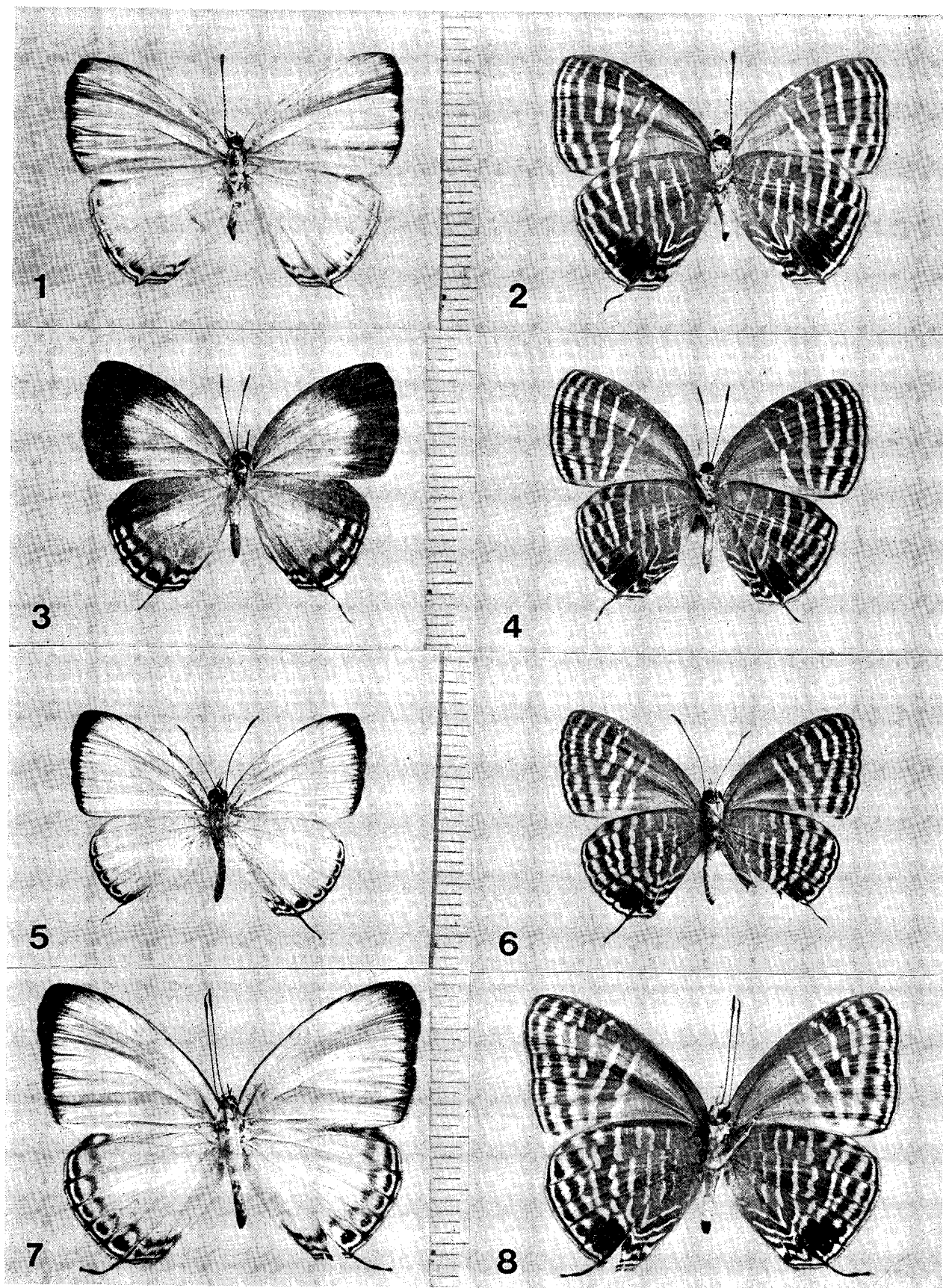
Distribution: Palawan

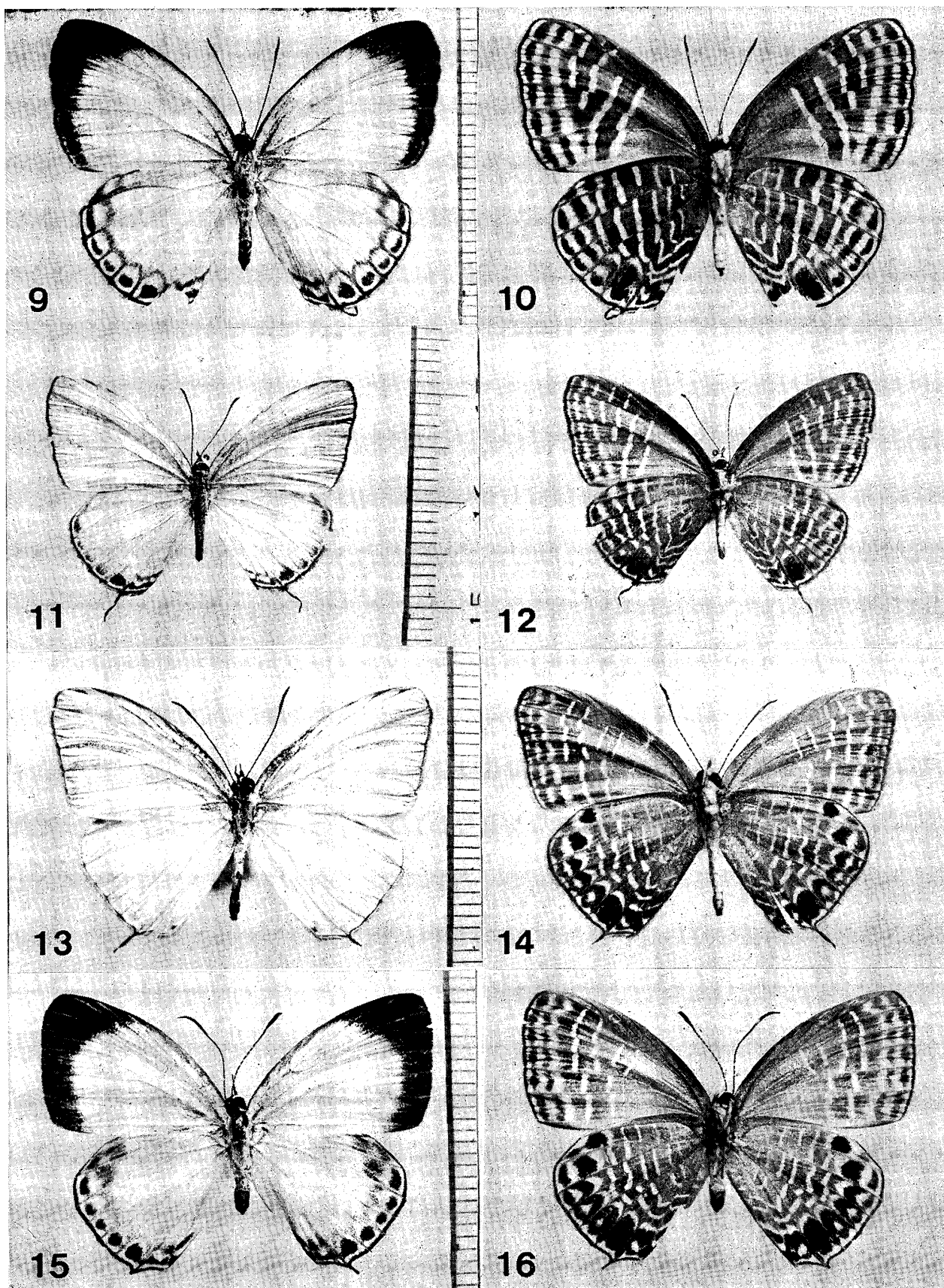
Holotype ♂, Alibobogan, Palawan, 10 December 1969. Paratypes 2♀ ♀, Taot-Daram, Palawan, 5 August 1968. 1♀, Binduyan, Palawan, 1 January 1969.

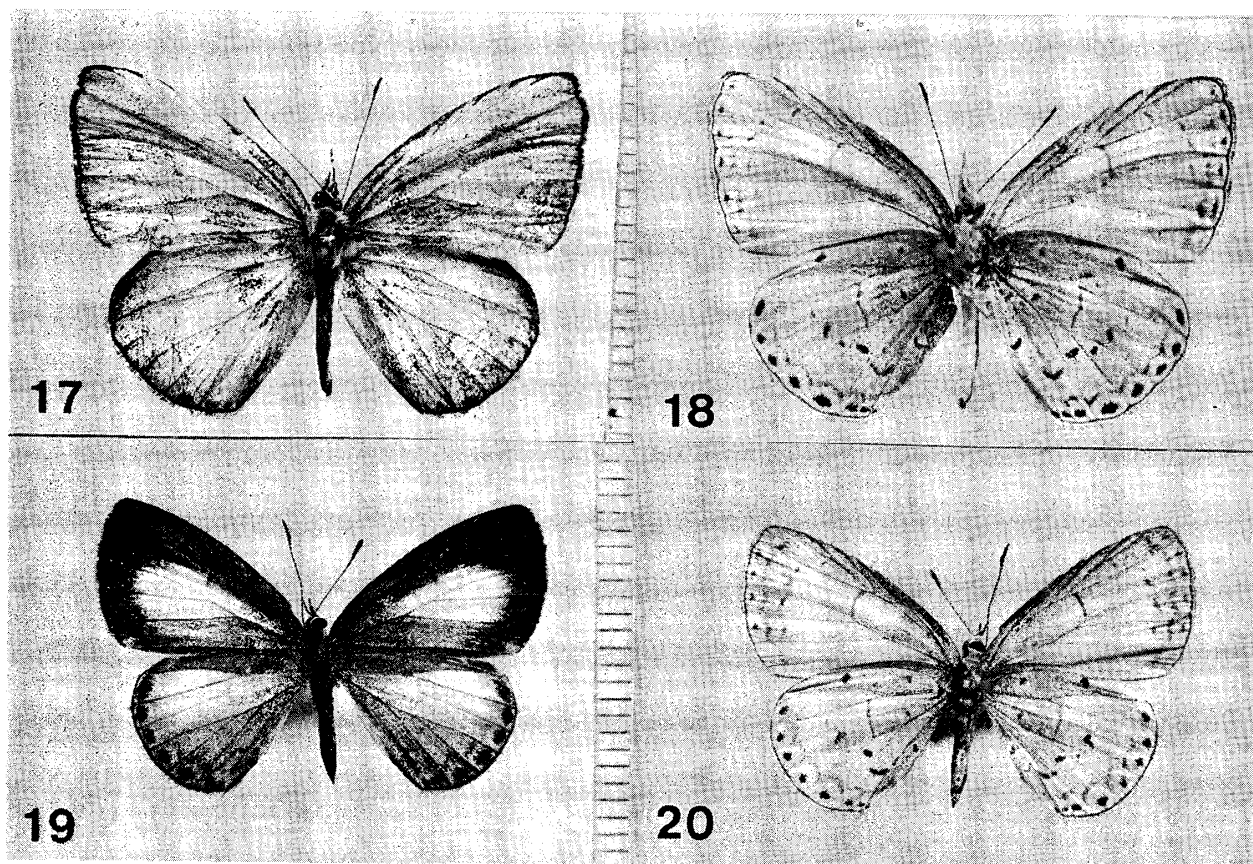
The species is distributed from Malaya to New Guinea and Australia and recorded from Palawan for the first time. The present new subspecies is easily distinguishable from ssp. *minna* Riley & Corbet (Malaya) and ssp. *lividus* Druce (Borneo) in the following respects: 1) Upperside whitish blue with a slightly greenish tinge, but sky-blue in *minna* and *lividus*. 2) Underside hindwing submarginal black spots conspicuous, while not so conspicuous in *minna* and *lividus*. 3) Tornal orange area of the female extremely prominent, but not so developed in *minna* and *lividus*.

Udara placidula kawazoei H. Hayashi, ssp. nov. (Figs. 17–20)

♂. Upperside pale blue. Forewing black border thread-like. Underside white. Markings rather regular. Forewing submarginal lunules and marginal dots continuing from tornus to apex, becoming weak apically. Spot of post-discal series in space 6 shifted in out of line with the rest. Hindwing marginal dots large and rather prominent. Three subbasal spots and post-discal spot in space 7 blackish, but not so prominent.







Forewing length 17mm

♀. Upperside white, faintly washed with lavender-blue, and with rather broader borders. Underside as in male.

Forewing length 14–15mm

Distribution : Palawan

Holotype ♂, Alibobogan, Palawan, 1 December 1969. Paratypes 2♀ ♀, Taot-Daram, Palawan, 4 August 1968. 1♀, Alibobogan, Palawan, 3 December 1969, 1♀, Alibobogan, Palawan, 5 December 1969.

The species flies from Assam to New Guinea. The male of this new subspecies seems to be very close to the ssp. *snelleni* Toxopeus from Java and Lesser Sunda Is., but the border on the upperside is even more thread-like. On the underside the markings are smaller than usual in this species.

I name this new subspecies after Mr. Akito Kawazoe for his continuous kindness and valuable guidances.

- Figs. 1- 2. *Jamides pura howarthi* ssp. nov., holotype ♂.
 Figs. 3- 4. ditto paratype ♀.
 Figs. 5- 6. *Jamides rothschildi aritai* ssp. nov., holotype ♂.
 Figs. 7- 8. *Jamides alecto kawazoei* ssp. nov., holotype ♂.
 Figs. 9-10. ditto paratype ♀.
 Figs. 11-12. *Jamides schatzi jumaloni* ssp. nov., holotype ♂.
 Figs. 13-14. *Jamides cyta natsumiae* ssp. nov., holotype ♂.
 Figs. 15-16. ditto paratype ♀.
 Figs. 17-18. *Udara placidula kawazoei* ssp. nov., holotype ♂.
 Figs. 19-20. ditto paratype ♀.